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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SALTARELLI, DOMINIC D

ART UNIT PAPER NUMBER

2623

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,639

Applicant(s)

CHEUNG ET AL.

Examiner

Dominic D. Saltarelli

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2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed September 6, 2006 have been fully considered but they are not persuasive.

First, applicant argues that the figure found in claim 33 is a table, and thus within the requirements of 35 U.S.C. 112 (applicant's remarks, page 6, 3rd paragraph). However, the examiner does not recognize the figure in claim 33 to be a definite table, and the rejection of claim 33 under 35 U.S.C. 112 remains.

Second, applicant argues that similar material has been found to be both acceptable and allowable in related applications (applicant's remarks, page 6, 4th paragraph). These applications were not examined by the current examiner.

Third, applicant argues that the data streams of the Kermode patent contain an entire movie while the anti-latency data streams of the pending claims contain only the leading portion of the movie (applicant's remarks, page 7).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., anti-latency data streams contain only the leading portion of the movie) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Fourth, applicant argues that neither Ganek nor Kermode have the objective of providing interactive functions (applicant's remarks, page 7, last paragraph).

In response, see Ganek, col. 9, lines 9-13, which teach affording a user VCR like controls over the playback of an ordered video.

Fifth, applicant argues that there is not motivation to combine the disclosures of the Ganek and Kermode patents, claiming the "are based on different operating principles" (applicant's remarks, page 7, last paragraph).

In response, the examiner must respectfully request further elaboration by the applicant on this point, because it is the examiner's understanding that the Ganek and Kermode patents in fact operate on very similar operating principles.

Lastly, applicant argues that the combination of Ganek and Kermode does not "result in a VOD system that permits a user to start a movie in relatively short time, provides the client with interactive functions, and at the same time maintains low bandwidth requirements." (applicant's remarks, page 8)

Here, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim Objections

2. Claim 26 is objected to because of the following informalities: On line 13, the phrase "the interactive data streams include N anti-latency data streams" should be changed to --the interactive data streams include N interactive data streams--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A figure is not an acceptable claim limitation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganek et al. (5,724,646, of record) [Ganek] in view of Kermode et al. (6,018,359, of record) [Kermode].

Regarding claim 26, Ganek discloses a system for transmitting data over a network to clients having a latency time to initiate transmission of said data to the client (said latency time represented by $T_{lead-in}$, see col. 3 line 66 – col. 4 line 32), including:

an anti-latency signal generator (the generators themselves are not specified, as they are well known components, col. 4, lines 43-51) for generating anti-latency data streams containing a leading portion of data for receipt by a client (secondary channels deliver the beginning portion of available programs, col. 6, lines 54-62 and col. 8, lines 7-9); and

an interactive signal generator for generating interactive data streams containing a remaining portion of said data for the client to merge into after receiving a portion of an anti-latency data stream (the streams sent to a user over the primary channels, col. 6, lines 54-62 and col. 7 line 50 – col. 8 line 4), wherein:

said data has a length R , and is fragmented in to K segments each requiring a time T to transmit over the network (the streams are MPEG compressed streams, wherein the TS packets of an MPEG stream are all of equal size, and thus requiring an equal amount of time to transmit over the network, col. 6, lines 12-25, and any arbitrarily selectable number of TS packets

represents a segment, wherein K is the total number of these segments), the interactive data streams include N interactive data streams (and however many primary channels are used equals N), wherein each of the N interactive data streams are repeated continuously within said interactive data streams (col. 3, lines 50-65) and wherein each successive interactive data stream is staggered by an interactive time interval $= KT/N$ (col. 7 line 49 – col. 8 line 4, wherein the time interval, T_{STAG} is 10 minutes, which is equal to the total length of the video (KT) of 1 hour (60 minutes) divided by the number of interactive streams (6), as $10 = 60/6$), and the anti-latency data streams include M anti-latency data streams (however many secondary channels are used equals M).

Ganek fails to disclose the anti-latency data streams 1 to M are generated such that an m^{th} anti-latency data stream has F_m segments, wherein F_m is an m^{th} Fibonacci number and the F_m segments are repeated continuously within the m^{th} anti-latency data stream.

In an analogous art, Kermode teaches a video distribution system (col. 5, lines 15-25) wherein the leading portions of a distributed video are provided over a plurality of channels (col. 5 line 59 – col. 6 line 13), wherein each successive channel has an amount of data repeated within it according to a Fibonacci sequence (col. 6 line 45 – col. 7 line 20, wherein the “segments” listed are equivalent to the “frames” denoted in applicant’s disclosure, figs. 6 and 7, thus the number of any data unit per “segment” is the Fibonacci number of the equivalent stream), ensuring that playback does not occur before the beginning

of a segment is loaded (col. 6, lines 38-44 and col. 7 lines 21-44) while more efficiently utilize available buffer space (col. 7 line 66 – col. 8 line 18).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Ganek to generate the anti-latency streams such that an m^{th} anti-latency data stream has F_m segments, wherein F_m is an m^{th} Fibonacci number and the F_m segments are repeated continuously within the m^{th} anti-latency data stream, as taught by Kermode, for the benefit of ensuring that playback does not occur before the beginning of a segment is loaded while efficiently utilizing available buffer space when accessing said streams.

Regarding claim 27, Ganek and Kermode disclose the system of claim 26, wherein the client is connected to the m^{th} and $(m+1)^{\text{th}}$ anti-latency data streams when the client raises a request for said data, the data in the m^{th} and $(m+1)^{\text{th}}$ anti-latency data streams is buffered in the client, and the client is subsequently connected to successive anti-latency data streams until all data in the leading portion is received by the client (Kermode, col. 5 line 59 – col. 6 line 13).

Regarding claim 28, Ganek and Kermode disclose the system of claim 27, wherein the client is connected to one of the N interactive data streams after all data in the leading portion is received by the client (Ganek teaches once the receiver has received the content of the secondary channel, it switches over to a primary channel, col. 8 line 66 – col. 9 line 8).

Regarding claim 29, Ganek and Kermode disclose the system of claim 26, wherein each of the N interactive data streams contains the whole set of said data having K segments (Ganek teaches the video program is provided on each primary channel, col. 6, lines 54-62).

Regarding claim 30, Ganek and Kermode disclose the system of claim 26, but fail to disclose each of the N interactive data streams contain the remaining portion of said data only.

However, Kermode further discloses placing only the remaining portion of video data on a stream to which a receiver merges into after receiving the initial streams (see fig. 4), maintaining a minimum needed bandwidth for each channel (col. 9, lines 3-9, bandwidth requirements are reduced when the amount of data transmitted per channel is reduced).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system of Ganek and Kermode to place only the remaining portion of said data onto each of the N interactive data streams, as taught by Kermode, for the benefit of maintaining a minimum needed bandwidth for each channel and reducing the overall bandwidth needed by the system.

Regarding claim 31, Ganek and Kermode disclose the system of claim 26, wherein $F_M \geq 2K/N$ (since K is any arbitrarily selectable number of TS packets, a

value of $K = 0.5N$ satisfies the equation for any positive whole integer value of M).

Regarding claim 32, Ganek and Kermode disclose the system of claim 26, wherein m starts from 1 (Kermode, col. 6, lines 45-60, wherein the series of $f(n)$ starts with 1, thus n , the segment size, starts with one).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in

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such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D. Saltarelli whose telephone number is (571) 272-7302. The examiner can normally be reached on Monday - Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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